

**Listing of Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-76 (Cancelled).

77. (Previously Presented) An isolated polynucleotide encoding a G protein-coupled receptor, wherein said polynucleotide is selected from the group consisting of:

(a) a polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:20; and

(b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:19.

78. (Currently Amended) An isolated polynucleotide encoding a G protein-coupled receptor, wherein said polynucleotide is selected from the group consisting of:

(a) a polynucleotide consisting **essentially** of a nucleotide sequence encoding the polypeptide of SEQ ID NO:20; and

(b) a polynucleotide consisting **essentially** of the nucleotide sequence of SEQ ID NO:19.

79. (Previously Presented) A vector comprising the polynucleotide of claim 77 or claim 78.

80. (Previously Presented) The vector of claim 79, wherein said vector is an expression vector, and said polynucleotide is operably linked to a promoter.

81. (Previously Presented) A recombinant host cell comprising the vector of claim 79.

82. (Previously Presented) A process for making a recombinant host cell comprising the steps of:

(a) transfected the expression vector of claim 80 into a suitable host cell; and  
(b) culturing the host cell under conditions which allow expression of a G protein-coupled receptor from the expression vector.

83. (Previously Presented) A membrane of the recombinant host cell of claim 81 comprising said expressed G protein-coupled receptor.

84. (Previously Presented) An isolated polynucleotide encoding a non-endogenous, constitutively activated G protein-coupled receptor, wherein said polynucleotide is selected from the group consisting of:

(a) a polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:20 wherein the codon corresponding to glycine at amino acid position 285 has been substituted with a codon corresponding to an amino acid other than glycine; and

(b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:19 wherein the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to an amino acid other than glycine.

85. (Currently Amended) An isolated polynucleotide encoding a non-endogenous, constitutively activated G protein-coupled receptor, wherein said polynucleotide is selected from the group consisting of:

(a) a polynucleotide consisting **essentially** of a nucleotide sequence encoding the polypeptide of SEQ ID NO:20 wherein the codon corresponding to glycine at amino acid position 285 has been substituted with a codon corresponding to an amino acid other than glycine; and

(b) a polynucleotide consisting ~~essentially~~ of the nucleotide sequence of SEQ ID NO:19 wherein the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to an amino acid other than glycine.

86. (Previously Presented) The polynucleotide of claim 84 or claim 85 wherein the codon corresponding to glycine at amino acid position 285 or the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to lysine.

87. (Currently Amended) A vector comprising the polynucleotide of ~~any one of~~ ~~claims~~ claim 84, 85 or 86.

88. (Previously Presented) The vector of claim 87, wherein said vector is an expression vector, and said polynucleotide is operably linked to a promoter.

89. (Previously Presented) A recombinant host cell comprising the vector of claim 87.

90. (Previously Presented) A process for making a recombinant host cell comprising the steps of :

(a) transfecting the expression vector of claim 88 into a suitable host cell; and  
(b) culturing the host cell under conditions which allow expression of a G protein-coupled receptor from the expression vector.

91. (Previously Presented) A membrane of the recombinant host cell of claim 89 comprising said expressed G protein-coupled receptor.

92. (Previously Presented) An isolated polynucleotide encoding a G protein fusion construct of a G protein-coupled receptor, wherein said polynucleotide comprises the nucleotide sequence of SEQ ID NO:19.

93. (Previously Presented) An isolated polynucleotide encoding a G protein fusion construct of a G protein-coupled receptor, wherein said polynucleotide comprises a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence encoding the polypeptide of SEQ ID NO:20 wherein the codon corresponding to glycine at amino acid position 285 has been substituted with a codon corresponding to an amino acid other than glycine; and
- (b) the nucleotide sequence of SEQ ID NO:19 wherein the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to an amino acid other than glycine.

94. (Previously Presented) The isolated polynucleotide of claim 93 wherein the codon corresponding to glycine at amino acid position 285 or the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to lysine.

95. (Previously Presented) A vector comprising the polynucleotide of any one of claims 92, 93 or 94.

96. (Previously Presented) The vector of claim 95, wherein said vector is an expression vector, and said polynucleotide is operably linked to a promoter.

97. (Previously Presented) A recombinant host cell comprising the vector of claim 96.

98. (Previously Presented) A process for making a recombinant host cell comprising the steps of:

- (a) transfected the expression vector of claim 95 into a suitable host cell; and
- (b) culturing the host cell under conditions which allow expression of a G protein fusion construct of a G protein-coupled receptor from the expression vector.

99. (Previously Presented) A membrane of the recombinant host cell of claim 97 comprising said expressed G protein fusion construct.

100. (New) A vector comprising the polynucleotide of claim 85.

101. (New) A vector comprising the polynucleotide of claim 86.

102. (New) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor comprising or consisting of the polypeptide of SEQ ID NO:20, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

103. (New) The method of claim 102 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor, said receptor comprising or consisting of the polypeptide of SEQ ID NO:20.

104. (New) A method for identifying one or more candidate compounds as modulators of a G protein-coupled receptor comprising or consisting of the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine, comprising the steps of:

(a) contacting said one or more compounds with a host cell or with membrane of a host cell that expresses said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate functionality of said receptor.

105. (New) The method of claim 104 wherein the glycine at amino acid position 285 is substituted with lysine.

106. (New) The method of claim 105 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor comprising or consisting of the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine.